

REMARKS

This responds to the Office Action mailed on May 26, 2005.

Claims 8-10 have been amended; as a result, claims 1-10 and 25-38 are now pending in this application.

§112 Rejection of the Claims

Claims 8-10 were rejected under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. The claims have been amended to correct claim numbering. Withdrawal of the rejection is respectfully requested.

§102 Rejection of the Claims

Claims 1-2, 5, 7, and 32 were rejected under 35 USC § 102(e) as being anticipated by Rumer et al. (U.S. 2003/0178730A1). Applicant respectfully traverses this rejection and requests the Office to consider the following.

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” (*Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987), M.P.E.P. §2131, 8th Ed., Rev. 1).

Claim 1 requires, among others, “a solder preform disposed on the matrix”. Rumer does not teach this. The Office Action refers to paragraphs [0020]-[0021], [0025], and [0029]. Paragraphs [0020]-[0021] describe the phase-change materials and the particles in FIGs. 1-3. Paragraph [0025] describes the heat-dissipating device. But the heat dissipating device (paragraph [0024]) refers to the heat spreader 14. Paragraph [0029] refers to a die substrate 100, a die 120 on the substrate, a flux 111 on the die, a solder 112 on the flux 111, another flux 113 on the solder, and an integrated heat spreader 140 on the flux 113. None of this description includes “a solder preform disposed on the matrix” which matrix includes “a plurality of first heat transfer structures disposed” therein. Because all the elements of claim 1 are not taught in

the cited reference, the cited reference does not anticipate claim 1. Withdrawal of the rejection is respectfully requested.

Claims 2-6 and 25-33 depend from claim 1 and therefore are also not anticipated by the cited reference. Withdrawal of the rejections of claims 2, 5, 7, and 32 is respectfully requested.

Allowable Subject Matter

Claims 3, 4, 6, 25-31, and 33-35 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant respectfully asserts that the independent claim is not anticipated by the cited reference and therefore these claims are also not anticipated.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney John Greaves at (801) 278-9171, or Applicant's below-named representative to facilitate prosecution of this application.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Serial Number: 10/607,738

Filing Date: June 26, 2003

Title: MULTI-LAYER POLYMER-SOLDER HYBRID THERMAL INTERFACE MATERIAL FOR INTEGRATED HEAT SPREADER AND METHOD OF MAKING SAME

Assignee: Intel Corporation

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Dkt: 884.832US1 (INTEL)

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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By their Representatives,

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Date July 26, 2005

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 26th day of July 2005.

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Signature